

Claims:

1. A flexibility suite for routing optical fibres within a telecommunications switch installation, the suite comprising:
  - 5 a first flexibility point and a second flexibility point, the first flexibility point including a first set of conduits each of the conduits having a first end disposed in a first array and a second end disposed in a second array ;  
the second flexibility point including a second set of conduits, each of the conduits having a first end disposed in a third array and a second end disposed in a fourth  
10 array;  
the flexibility suite being so arranged as to permit the conduit ends on the second array to be interconnected with conduit ends on the third array by means of tubular interconnects so that, by selecting the conduits whose ends on the second and third arrays are interconnected, a continuous path can be formed between any conduit end  
15 in the first array and any conduit end in the fourth array.
2. A flexibility suite as claimed in claim 1 wherein said tubular interconnects are present and interconnect conduit ends on the second and third arrays, and wherein means are provided to control the paths taken by the tubular interconnects.  
20
3. A flexibility suite as claimed in claim 1 or claim 2, wherein each of the conduit ends on the second, third and fourth arrays is provided with a connector for connection of the respective conduit end to a tubular interconnect.
- 25 4. A flexibility suite as claimed in claim 3, wherein each connector of the third array is provided by one end of a double-ended connector, the other end of each connector providing the corresponding connector of the fourth array, the bores of the connectors providing the conduits of the second set.
- 30 5. A flexibility suite as claimed in claim 3 or claim 4, wherein each of the conduit ends of the first array are also provided with a connector for connection of the respective conduit end to a tubular interconnect.
6. A flexibility suite as claimed in claim 5 wherein each connector of the second  
35 array is provided by one end of a double-ended connector, the other end of the

connector providing the corresponding connector of the first array, the bores of the connectors providing the conduits of the first set.

7. A flexibility suite as claimed in any one of claims 1 to 6, wherein the bores of  
5 the conduits and the tubular interconnects are between 1.5 and 5 millimetres in diameter.

8. A flexibility suite as claimed in claim 7, wherein the bores are between 2 and 4 millimetres in diameter.

10

9. A flexibility suite as claimed in any one of claims 1 to 9, wherein the second and third arrays or the first and fourth arrays are arranged side by side.

10. A flexibility suite as claimed in claim 9, wherein the side-by-side arrays are  
15 provided on two panels distinct from each other.

11. A telecommunications switch or router installation comprising;  
a telecommunications switch or router;  
a first and at least one second flexibility suite according to any of claims 1 to 9;  
20 a sub-path being defined through each of the flexibility suites from the first array to the fourth array via an interconnection between the second and third arrays;  
the fourth array of the first flexibility suite being interconnected with the first array of the or one of the second flexibility suite(s);  
a tubular pathway being provided between the fourth array of the second flexibility  
25 suite or the last of the second flexibility suites and the switch or router;  
the other second flexibility suites, if any, being interconnected in series with the first array of each of subsequent second flexibility suite being interconnected with the fourth array of the preceding second flexibility suite by means of a tubular interconnect, so  
that a substantially continuous path is provided for installation of a blown-fibre member  
30 between the first flexibility suite and the switch or router; wherein the switch or router is optically connected, via an optical fibre of a continuous blown-fibre member which extends along said substantially continuous path, to an optical fibre of an optical fibre cable which enters the installation from an external telecommunications network.

12. An installation as claimed in claim 11, wherein the optical fibre of the blown-fibre member is spliced to the fibre of the incoming cable.
13. An installation as claimed in claim 11, wherein the optical fibre of the blown-fibre member is spliced to a fibre of a cable or fibre unit which is within the optical path between the incoming cable and the blown-fibre member.
14. An installation according to any one of claims 11 to 13, including a plurality of secondary flexibility suites.
15. An installation according to any one of claims 11 to 14, wherein a plurality of telecommunications switches are connected, via the primary and secondary flexibility suites, to optical fibres of several incoming cables.
16. An installation according to any one of claims 11 to 15, including bend control means to control the bend radius of the blown fibre tube.
17. A method of creating a connection in a telecommunications switch or router installation, between a telecommunications switch or router, and an optical fibre of an incoming cable connected to and incoming from a telecommunications network, comprising the steps of:  
installing lengths of blown fibre tube and joining the ends of the lengths of blown fibre tube to form a path from a primary flexibility suite to the telecommunications switch via a secondary flexibility suite, where the primary and secondary flexibility suites include means for routing joined blown fibre tubes within the installation, and thereafter, installing, by blowing, a continuous blown fibre unit through the path formed by the joined blown fibre tubes, to provide an optical path between the telecommunications switch and the optical fibre of the incoming cable.
18. A method of re-routing an existing connection in a telecommunications switch or router installation from a connection between a first telecommunications switch or router and a primary flexibility suite, to create a connection between a second telecommunications switch or router and the primary flexibility suite, comprising the steps of:

- breaking the connection between the first telecommunications switch and the primary flexibility suite, joining the ends of lengths of blown fibre tube to form a path from the primary flexibility suite to the secondary telecommunications switch via a secondary flexibility suite, where the primary and secondary flexibility suites include means for routing joined blown fibre tubes within the installation, and thereafter, installing, by blowing, a continuous blown fibre unit through the path formed by the joined blown fibre tubes thereby providing an optical path between the second telecommunications switch or router and the optical fibre of the incoming cable.
- 10 19. A method according to claim 17 or 18, wherein the primary flexibility suite includes a line-side optical flexibility point and an equipment-side blown fibre tube flexibility point located in proximity to each other, and the secondary flexibility suite includes a line-side blown fibre flexibility point and an equipment-side blown fibre flexibility point located in proximity to each other, wherein the path from the primary flexibility suite to the telecommunications switch is formed by installing a blown fibre tube from the equipment-side blown fibre flexibility point in the primary flexibility suite to the line-side blown fibre flexibility point in the secondary flexibility suite, installing a blown fibre tube from the equipment-side blown fibre flexibility point in the secondary flexibility suite to the telecommunications switch, and interconnecting the line-side flexibility point to the equipment-side flexibility point in flexibility suite.
- 20 20. A method according to any of claims 17 to 19, wherein the continuous blown fibre unit is installed by blowing from an equipment rack housing the telecommunications switch.
- 25 21. A method according to any of claims 17 to 20 wherein the continuous blown fibre unit is pre-connectorised.
- 30 22. A method according to any of claims 17 to 20 wherein the continuous blown fibre unit is installed by blowing from the line-side optical flexibility point of the primary flexibility suite.